AUGUST 1955

FIREMEN

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SIXTIETH YEAR OF THE NATIONAL FIRE PROTECTION ASSOCIATION

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Firemen

Volume 22 — Number 5

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Fire Prevention Week Contest

Just 44 years ago the North American fire service made its first attempt to enlist the general public's cooperation in a year-around battle against fire waste. That first fire prevention effort has grown into the biggest of all special events observed throughout Canada and the U. S. (The competition for public attention is vigorous, since that there are now more than 5,000 special "Weeks" and "Days" each year.)

A feature of which no other special week can boast is the annual Fire Prevention Week Contest — the means whereby a fire department's seven-day campaign efforts become a matter of international record that reflect to the department's credit as late as three and four months after the actual campaign. Fire Prevention Week returns to the public eye each January with the national announcement of Contest winners and, thereafter, locally everywhere as each community acknowledges receipt of Fire Prevention Week honors from the National Fire Protection Association.

The public relations value of the Fire Prevention Week Contest appears to be appreciated more widely in Canada than in the U. S. on the basis of participation figures. Last year, for example, more than twice as many Canadian communities (791) as American (339) entered the Contest. And this year there are indications that Canada will better its previous total, thus providing a challenge to communities in the United States.

If you haven't already done so, we urge you to plan a top-notch presentation of your 1955 Fire Prevention Week campaign and submit it in this year's Fire Prevention Week Contest. An official entry blank can be found following page 16 in this issue of FIREMEN. We urge you to read it over carefully for it may give you some ideas which can contribute to the success of your campaign.

Cover Picture

Fast rescue work by Nelson, British Columbia fire fighters undoubtedly prevented greater loss of life when this hotel burned in that community on May 27. This month's cover is one of the pictures sent to the NFPA Fire Record Department by Chief Elwin S. Owens. Further details of his report may be found on page 7 of this issue.

NFPA in Europe

NFPA General Manager Percy Bugbee, and Assistant Technical Secretary George H. Tryon, III, recently completed a 6-week trip through Europe, during which they visited many NFPA members in England, France, Belgium, Denmark and Sweden. One of the receptions in which they participated is shown below. This occasion followed a meeting of the London Chapter of the Industrial Fire Brigades Association at Hoover, Ltd., Perivale, Middlesex, England, where Mr. Bugbee and Mr. Tryon discussed American practices in industrial fire protection and prevention.

Left to right are: J. C. Abbott, Fire Protection Superintendent, British Overseas Airways Corporation; Assistant Chief Dan Ivall, Middlesex Fire Brigade; Mr. Bugbee; N. J. B. Robbins, Sales Manager, Foam Division, The Pyrene Company, Ltd.; R. C. Harrison, Chairman, The Pyrene Company, Ltd.; J. H. Hutchinson, Imperial Chemical Industry Ltd.; Mr. Tryon; and J. A Brooker, Ministry of Transport and Civil Aviation.

Wind Gusts Scatter Fire In Minneapolis

THE Minneapolis, Minnesota, Fire Department, headed by Chief Reynold C. Malmquist, had some difficult problems when fire involved this vacant industrial building on May 6. High winds of 20 to 30 mph, including gusts of 42 miles per hour velocity, carried embers throughout the neighborhood and started about 70 different fires, one of them more than a mile distant from the original scene. A severe conflagration was avoided through good first aid fire fighting measures and because the wind velocity slowed at a critical moment.

The fire started at about 4:45 P.M. A parking lot operator noticed smoke near a loading dock at the rear of the 4-story brick, wood-joisted building and immediately telephoned an alarm, but before fire fighters could respond from Station No. 4, only a block away, flames had fully involved the building. Between 4:49 and 5:05 P.M. five additional alarms, sent by a Battalion Chief, brought into action 15 pumpers, 2 hosewagons, 4 ladder trucks, a rescue squad and some 135 firemen. Auxiliary police and civil defense volunteers also responded to emergency calls, to assist in patroling the area and handling the rush hour traffic. Under mutual aid assignment, 4 engine companies and a ladder company from the St. Paul Fire Department "covered" fire stations in the congested downtown areas in Minneapolis.

Although the building was supposed to be protected by a sprinkler system, the main control valve had been closed. Because of the wind force, the flames whipped around the front (street) wall and ignited wooden window frames of the adjoining 6-story building. Fire also spread over the adjoining 36-in. parapeted fire wall to ignite the wooden roof of this building. Thirty-six sprinkler heads fused at the upper floors to provide some fire control along the front wall of the building. The intense wind-driven heat scorched several other exposed buildings in the immediate vicinity and damaged a number of cars in the parking lot which was on the opposite side of an 80-ft. street. A fire department aerial ladder was completely destroyed by the excessive heat and falling materials before fire fighters could remove it.

The 4-story brick, wood-joisted building was demolished by the intense fire as shown in this photo. Note how wooden roof of adjoining building was involved when flames leaped over 3-ft. parapet. (*Wide World Photo.*)

At the height of the fire when all manpower was assigned, Chief Malmquist sent out a radio and television appeal to business men in the district, urging them to post fire watchers on the roofs of their buildings to extinguish any fire caused by flying brands. This measure proved practical because some 70 fires started in the neighborhood and the "lookouts" as well as the fire department did exceptional work in preventing a serious conflagration.

Fire apparatus responding to the multiple alarms included 19 pumpers, 7 ladder trucks, a rescue truck and 10 other vehicles. Fourteen 3-in. lines, thirty-nine 2½-in. lines and nine 1½-in. lines were used.

Fire action in early stages of blaze showing involvement of original building. Ladder truck at left was smashed by debris after two explosions occurred. Intense heat prevented movement of the vehicle. Note large caliber fog stream in foreground. (*United Press Photo.*)

"I'm roasting. How about you?'

Six Die in Quick Hotel "Burnout"

THERE were just too many rescues to be made when fire involved the Strathcona Hotel in Nelson, British Columbia, on May 27. Despite fast response and rescue work by more than fifty fire fighters, six of the 51 occupants were asphyxiated in the unsprinklered 3-story wooden building, which had served as a hotel for 57 years.

According to a report by Chief Elwin S. Owens of the Nelson Fire Department, first apparatus responded within 1½ minutes after the alarm was received at 12:55 A.M. The 13 men who were on duty arrived in two pumpers and an aerial ladder, but within 15 minutes twenty more off-duty fire fighters were called, in addition to a number of volunteers who helped in the fire fighting and rescue operations.

Because men, women and children were hanging from window sills as fire fighters arrived, rescue efforts were immediately necessary. More than 17 persons were assisted to safety over the aerial ladder from the roof, third and second floors, while others were helped by fire fighters using 14 extension ladders. Chief Owens also stated that an important item of equipment was the new "audio hailer," a powered megaphone which the department had recently purchased, and which was an important factor in minimizing panic and in controlling general operations.

Initial attack was made with four 2½-in. lines plus two booster lines, and two 1½-in. lines. Eventually fourteen 2½-in. lines were in operation, principally to protect exposures, since the building became completely involved and was "gutted" within 35 minutes. Open staircases, lack of sprinklers, lack of fire stops and fire walls were factors which contributed to the rapid spread. Three engine companies, a ladder company and a rescue squad participated in the fire attack.

Post-fire investigation determined that the fire had started somewhere on the second floor and apparently had burned for 30 to 40 minutes before discovery. Loss was estimated at $68,000.

Typical rescue scene during hotel fire. Fire fighters made good use of an aerial ladder and of extension ladders in effecting rescues.

Two views of involved Strathcona Hotel, showing intense fire conditions which confronted Nelson Fire Department members shortly after rescues were completed.

MAKING A GOOD JOB OF IT

BY WARREN Y. KIMBALL

Good Streams from Limited Water Supply

IN A previous issue we showed how flows from any given size nozzle tip could be determined by multiplying 1/10th of the gpm at 100 lbs. by the square root of the nozzle pressure. However, some readers may be thinking of nozzle tips as though they were always used at the same pressure (as a 1⅛-inch tip at 50 lbs. gives 265 gpm). These same tips when properly designed and supplied can be used effectively for other flows merely by changing the nozzle pressure. For example the 1⅛-inch tip will provide a 450 gpm stream on a heavy stream device if supplied at 144 lbs NP.

Of course, the tip and the heavy stream device must be properly designed and tapered to provide a smooth stream. Unless a large shut-off nozzle valve, capable of handling the larger flow, is attached to the heavy stream device, it may be best to connect the tip on a pipe without a nozzle controlling valve. The valve, although highly desirable, will not be essential if the pump is properly located and the pump operator is on the job.

To demonstrate the importance of using smaller tips on heavy stream devices, (or any other nozzle), when water supply is limited, a hose layout was made from a small dead-end main at the Boston Fire Department Training School, and a wagon pipe mounted on a pumper was placed in service. To further restrict the supply a single 3-inch feeder line fed the pump, which was 200 ft. from the hydrant. The maximum flow available with 0 lbs. pressure showing on the pump intake gage was 340 gallons.

Two tips were used. The first was a tip slightly larger than 1¼ inches and rated to deliver 496 gpm at 100 lbs., or 350 gpm at 50 lbs. The maximum nozzle pressure that could be developed using this tip, without "running away from water," was 45 lbs. As shown in the photo the stream was fair but lacked striking power at reach.

Then the other tip, just under 1⅛ inch was used. This tip was rated at 354 gpm at 100 lbs. or 250 gpm at 50 lbs. With this slightly smaller orifice the pump was able to maintain 98 lbs. nozzle pressure, providing an effective gun stream as shown in the photograph.

With the smaller tip, even if only 300 gpm were available, an effective nozzle pressure of 72 lbs. would have been possible, but with the larger tip 300 gpm would have permitted only 36 lbs. NP. Where a supply of 450 to 500 gpm is available the smaller tip might also be desirable, making possible an increase in nozzle pressure or providing supply for one or two 1½-inch lines in addition to the gun.

These comments are not intended to be a recommendation for small tips on heavy stream devices where flows are ample. Such devices normally call for 500 to 1000 gpm or more.

One trick helpful in getting a smooth stream when using a relatively small tip on a heavy stream device is to use a tapered playpipe, thus reducing the waterway to the small tip size so as to avoid turbulence that would tend to break the stream.

It should be mentioned that where large capacity adjustable type fog nozzles are available these provide an excellent nozzle device for use with a limited water supply. The nozzle orifice may be opened only as far as effective pressure can be maintained and still have a serviceable stream. If an additional supply is obtained later, the nozzle may be fully opened without shutting down or changing tips.

Nozzle, pump and hydrant pressures which resulted with each tip are shown below.

Tip	NP	GPM	Pump Pressure	Pump Residual	Hydrant Residual
"250"	(1) 45	332	53	0	31
"350"	(2) 98	340	111	0	31

(1) = $35.4 \times \sqrt{NP}$
(2) = $49.6 \times \sqrt{NP}$

Wagon gun stream with small tip demonstrated by Boston fire fighters under District Chief Andrew McElaney and Captain William J. Kelly of the Training Division. This shows that a good stream can be developed with a small nozzle tip commensurate with a limited water supply. Tests were conducted at the U. S. Navy's South Boston Fire School using a 750 gpm CD pumper assigned to the Training Division. This 340 gpm stream had good reach with 98 lbs. nozzle pressure.

With exactly the same layout (supply limited to approximately 350 gpm) water is discharged through a larger tip. Maximum nozzle pressure developed was 45 lbs. and the stream was observed to have poor reach and force. Note that the supply line to the pump is beginning to collapse, indicating that all available water is being utilized. Supply was deliberately limited to one line from a small dead-end main to indicate the importance of using the correct nozzle tip where water supply is limited.

Flammable Liquids Notebook

Part III of a series which can be used in training fire fighters in the properties and hazards of flammable liquids and recommended techniques for fighting fires involving flammable liquids.*

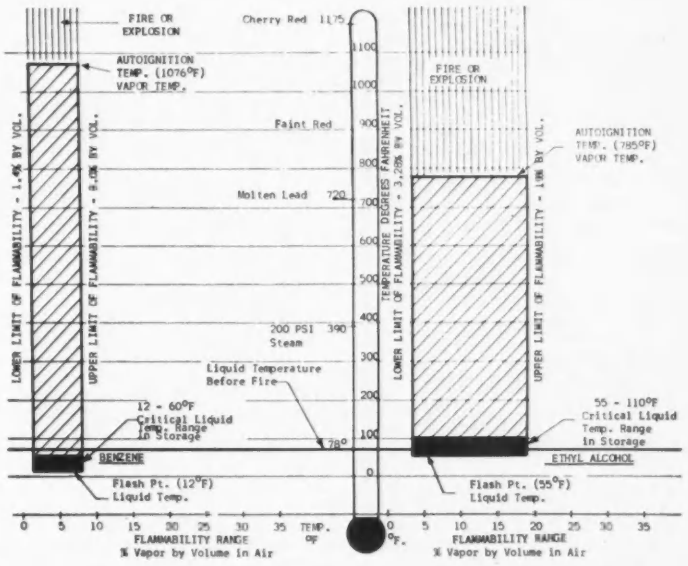
FLAMMABLE OR EXPLOSIVE LIMITS. Flammable liquid vapors burn only in the presence of oxygen, which is usually supplied by the atmosphere (air). Vapors which are given off at the surface of the liquid mix with the air to create a flammable mixture. However, there is a minimum "leanness" of vapor, in air or oxygen, below which fire can't occur on contact with a source of ignition. There is also a maximum amount of vapor in air ("richness") above which fire can't occur. Within these minimum and maximum limits of vapor-air mixtures fire will occur when a source of ignition is present.

The leanest vapor-air mixture is known as the lower flammable, or explosive limit, and the richest mixture as the upper flammable or explosive limit.

For example, the lower flammable limit of gasoline at ordinary temperatures is approximately 1.4 parts of vapor and 98.6 parts of air, while the upper flammable limit is about 7.6 parts of vapor and 92.4 parts of air. Mixtures which contain less than 1.4 percent of gasoline vapor in air are too "lean" to burn at normal atmospheric pressure and temperatures; whereas those which contain more than 7.6 percent are too "rich" to burn.

The flammable limits of other flammable liquids may be higher or lower than those for gasoline and are listed in Chapter 12 of the 11th Edition of the NFPA Handbook of Fire Protection. At higher or lower temperatures, or pressures, the explosive limits will vary.

The difference between the lower and upper flammable limits is known as the "flammable range." For gasoline, this would be the difference between 1.4 percent and 7.6 percent or a flammable range of 6.2. For methyl alcohol, the flammable limits are 7.3 percent to 36 percent and the flammable range is 28.7. Thus, since methyl alcohol has a wider range of flammability, at a temperature above its flash point of 52 degrees, it would be easier to ignite than would gasoline.



The flammable or explosive ranges of benzene and ethyl alcohol are illustrated by this chart. The shaded column at left shows that benzene has limits of flammability varying between 1.4 and 8.0 parts per hundred, or percent by volume. For ethyl alcohol these limits are between 3.28 and 19 percent.

An understanding of the flammable limits and flammable range will enable the fireman to do a more effective job in fire prevention, and also will enable him to more effectively understand and fight flammable liquid fires. For example, at average temperature and pressure, the vapor-air mixture *above low flash point liquids*, such as gasoline in closed tanks and containers, is usually too "rich" to burn. For liquids whose flash points *approximate the storage temperatures*, the vapor-air mixtures are likely to be within the flammable limits. For liquids whose flash points are *above the storage temperature*, the vapor-air mixtures are too "lean" to be ignited. Examples of these three conditions for common liquids which are stored in tanks and containers are: gasoline, (too "rich"); ethyl or methyl alcohol, (within the flammable limits), and kerosene, (too "lean").

In defining areas as hazardous because of the installation of electrical equipment, the lower limit of flammability is considered, in many cases. Since the amount of flammable liquid surface that might be exposed to the air, either from an open container or accidental spill, is unknown, a margin of safety is established to minimize the possibility of igniting the vapor-air mixture during operation of the electrical equipment. Similarly, firemen should appreciate the flammable or explosive range when restricting or prohibiting *work* which would provide a source of ignition to flammable vapor-air mixtures.

The combustible gas indicator, which will be discussed in a later section of this notebook, shows the percentage of the lower flammable limit. With the understanding of the lower flammable limits and a combustible gas indicator you can evaluate most flammable liquid hazards and correct situations where fire may involve flammable vapor-air mixtures.

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*For discussion of "FLASH POINT" refer to the April, 1955, issue of FIREMEN. The June issue featured Part II of this series, "IGNITION TEMPERATURE."

Nothing Mysterious About Governors!

By Hubert Walker, Manager, Motor Fire Apparatus Sales Engineering, American LaFrance Corporation, Elmira, New York.

From an address at the 27th Fire Department Instructors Conference, Memphis, Tennessee, February 22–25, 1955.

AT a recent meeting of the Exploratory Committee on the indirect Application of Water, a representative of a State Fire Marshal's Office remarked: "When we are setting up our pumpers for one of the house fire tests, we also set the pump pressure governor, if it is working." This comment would clearly indicate the need for maintenance on the apparatus he was given to use. This maintenance problem is not uncommon.

At one fire school recently, seven pumpers of five different makes, from four towns, were available for training pump operators. However, examination disclosed that not a single pumper had a properly working pressure control device. Some pumpers had poorly functioning relief valves and others had clogged governors. All were placed in proper working order within three hours. One pump operator remarked that it was the first time the device had ever worked, and he had been an operator on that pumper for over ten years.

There is nothing mysterious about a relief valve or a governor. In a relief valve, an adjustable spring-loaded pilot valve operates a by-pass or churn valve, which opens a water passage from the discharge to suction side of the pump when a pressure rise occurs above the working or set pressure.

In a governor, a spring loaded device operates to close the engine throttle to maintain a working or set pressure.

In either device it is usually dirt, or lack of lubrication that causes malfunctioning. The first indication of potential trouble is usually slow action with abnormal pressure rise. When this condition is observed, report it at once for corrective action by your maintenance mechanic.

Not all pressure control units can be given "in service" maintenance. However, they can all be dismantled in the station for cleaning and oiling, which is usually sufficient to restore proper operation. The time required for this maintenance is usually less than one hour.

The Ross Relief valve, (lower left), requires removal of the valve assembly to permit cleaning the strainer and restriction orifice.

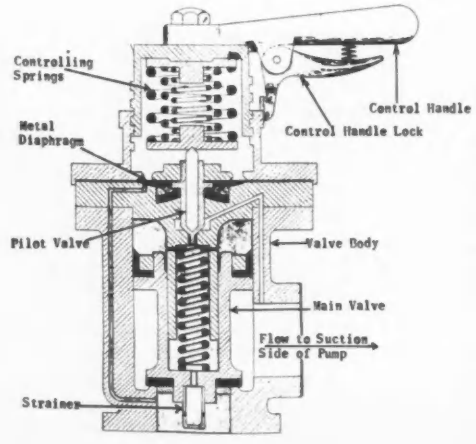
The sectional view of a Waterous relief valve at bottom right, indicates that the pilot valve is the essential part to be cleaned and oiled. A relief valve assembly is usually composed of two valve assemblies, the pilot valve, which "triggers" the operation and the churn or by-pass valve, which is controlled by the pilot valve. The pilot valve is sensitive to pressure changes only when it operates freely.

When the pilot valve is disassembled, and after the valve and passages are cleaned of sand or dirt, a light oil (S.A.E. 10 W) or a light waterproof grease (Lubriplate 210) should be applied.

The knurled sleeve adjusting nut (K) should be unscrewed and removed which will permit checking the freedom of the pilot valve. This should move endwise freely even though the movement is necessarily limited. If it appears to be sticking, then the cap screws which hold the flange housing to the pump case should be removed which will permit the entire pilot valve assembly to be free of the pump case. Any sand or dirt on the inner end of the pilot valve should be cleaned out thoroughly and a light oil applied. Make sure the passage in the pump case is cleaned before reassembling. Some oil should be applied in the passageways in the case in which the pilot valve operates. Do not get oil in the diaphragm.

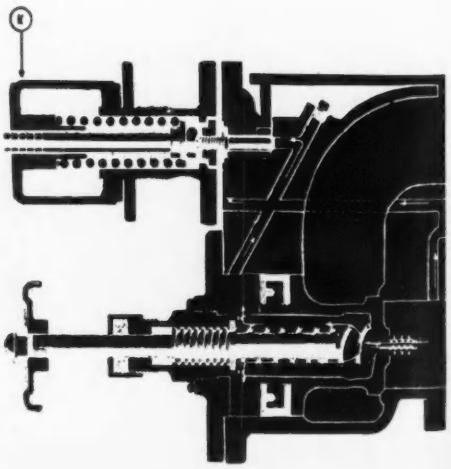
When reassembled this pilot valve should move freely for a limited distance before the knurled adjusting nut is again assembled.

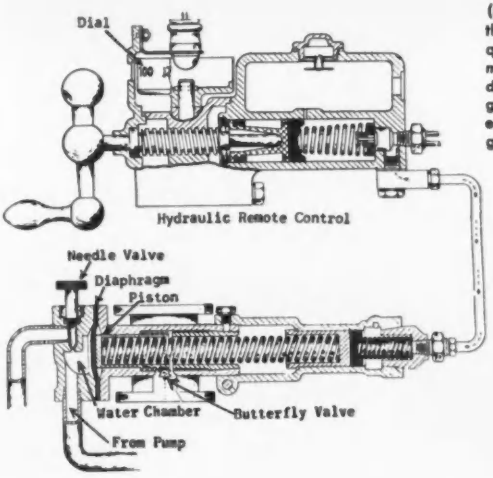
The Hale Ideal relief valve shown on page 11 would also be restored to proper operation quickly by cleaning



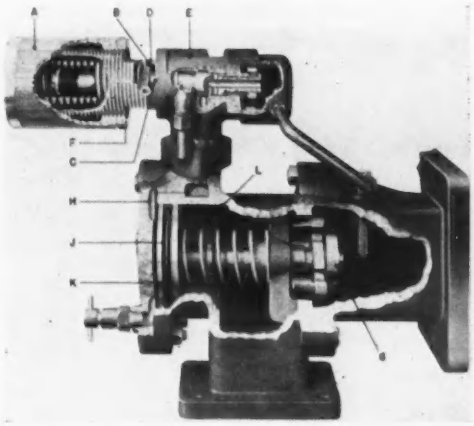
(Left) Operation of this Ross Relief Valve is regulated by water pressure on the under side of the metal diaphragm and the control spring pressure on the upper side. Since pressure passes through the strainer, proper maintenance requires removal of the valve assembly and cleaning of the strainer and orifice.

(Right) The Waterous relief valve assembly has a pilot valve (C) and a by-pass valve (B). Unscrewing the knurled sleeve adjusting nut (K) permits removal of the pilot valve assembly for cleaning, oiling and proper adjustment.





(Left) The needle valve of the Seagrave governor requires attention during maintenance checks, since dirt or other material plugging the orifice has a direct effect on the action of the governor.



(Left) Hale Ideal Relief Valve. The main valve (G) should be tested frequently for freedom of movement. Remove cap (H) and push piston (J) in and out. If packing (K) shows tendency to stick in cylinder (L), lightly grease cylinder wall where packing traverses it. If control valve does not function properly, take it apart, clean and oil close fit of piston (C) in casing (E). Use only a light high-grade oil.

and oiling the pilot valve. The knurled adjusting nut should be unscrewed to relieve all pressure from the spring, making possible a check on the freedom of the pilot valve. If the latter appears to be sticking and does not move freely, the tubing elbow on the side of the pilot valve housing can be removed and a light oil (3 in 1 or S.A.E. 5 W) can be applied to the pilot valve. Working the valve back and forth will usually allow it to function freely. Should this method still not free it sufficiently, then it will be necessary to take the pilot valve apart, thoroughly cleaning out all dirt and foreign material and oiling with a light oil as described above.

This latter operation is not an "in-service" operation, but should be done in the repair shop or after taking the truck out of service.

The old type Hale relief valves had a manually operated "churn" valve. Where these are still in use they should be checked and lubricated regularly.

Proper functioning of an American-LaFrance relief valve, also requires the pilot valve to be clean, and in addition the restriction orifice should be clear of dirt and other impediments.

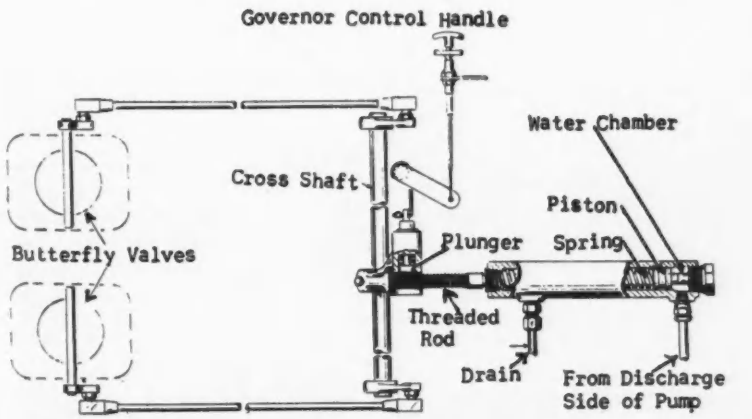
The pilot valve can be oiled by removal of a small plug on the top side of the pilot valve spacer. Use S.A.E. 5 W or S.A.E. 10 W to lubricate this pilot valve. If the valve does not move freely after inserting about ten drops of oil, then it will be necessary to disconnect the spring housing which will permit removal of the pilot valve and diaphragm so that both the valve and passageway can be thoroughly cleaned and oiled.

If there is any question of the churn valve operating properly, remove the small cover at the inside end of the housing, and by applying pressure at the end of the shaft the churn valve should move freely.

If the application of oil in the shaft bushing and movement of the shaft does not permit the valve to move freely then it will be necessary to disassemble the churn valve in order to thoroughly clean both inside and outside bearings. This latter operation is definitely not in-service maintenance but must be done in the repair shop where time will permit a thorough cleaning operation, proper reassembly and checking before going back into service.

Shown above is a diagram of the Seagrave governor. This mechanism requires the following maintenance: (a) Use only hydraulic brake fluid; (b) Oil the diaphragm piston in the governor control on the engine. A few drops of light engine oil S.A.E. 5 W or S.A.E. 10 W should be applied. Do not overoil, as the oil can cause deterioration of the diaphragm; (c) Make sure the vent at the needle valve is open to permit a slight amount of water to trickle out when the pump is operating. One side of the needle valve thread area is flattened to permit this water relief. Should the orifice or valve become plugged, the action of

(*Continued on page 24*)



American-LaFrance governor assembly showing sectional view of piston, shaft and spring, all of which should be lubricated with light grease for efficient operation of the governor.

What to Do about "Jumbo" Fire Areas

Fire walls and roof venting can keep industrial fires to controllable size.

The following story is taken from the June, 1955, issue of "The Sentinel", a publication of the Factory Insurance Association, issued monthly for its member companies and policyholders. Many industrial plants would benefit by applying some of these suggestions for "positive fire control."

AMERICAN industry is without parallel in its ability to "do things in a big way." This is the result of creative thinking and the genius which has made America great.

Doing things in a big way in industry normally requires a big plant. However, this is not synonymous with big unbroken fire areas. Nevertheless that is the present trend and it is a dangerous one.

Just so long as industry is insistent upon erecting plants with fifty to seventy-five million dollars or more in one large fire area, a disaster type of loss, which can approach a near total burn-out, is quite possible, as we have seen in recent years,

So great are these areas that, in some cases, better than two-thirds of the unbroken area is beyond reach of effective hose streams which may necessarily have to be used around the periphery of the building. This is the technique or fire fighting pattern which is imposed upon firemen when building entry is precluded by impenetrable smoke within. Unfavorable winds (which occasionally change direction during a fire) may have the same result; windowless structures and those having no structural openings in the roof, such as monitor and sawtooths, are other such examples.

Fire experience has established that no building, regardless of construction, can survive fire exposure without damage under unfavorable conditions. Unprotected steel structures are very vulnerable; even concrete buildings eventually succumb, the essential difference being the degree and duration of fire exposure to which a structure is subjected.

The best protection against fire is complete automatic sprinkler protection. There just is no substitute.

However, with the dangerous trends of constructing areas that are definitely excessive and the increase in occupancy hazards, including high piled stocks, it is quite possible to so overtax the sprinkler system that it cannot do an effective job. Further, there are occasions when a sprinkler riser or a section of underground piping has to be out of service for a brief period for repairs or new connections thereto. Should a fire start during this interim, it can so develop and spread out that the wholesale fusing of sprinklers around the perimeter of this unprotected area can no longer effect fire control.

At this stage, the fire in these "jumbo" areas can readily overtax even the most skillful and best equipped fire fighters. This possibility is further increased by the fact that many such plants have been, and are being, built far removed from powerful municipal fire services.

Once fire has become master of the situation, and all "on the spot" efforts to stop it fail, it can sweep through an area unimpeded — unless "it runs smack into a blank wall."

In a manufacturing or warehouse area, the next best positive fire stop to a blank wall is a well-engineered, well-placed, well-constructed standard fire wall, with well-maintained double automatic fire doors at all openings. If such walls have to be pierced by conveyor for production efficiency purposes in nearly all cases effective fire barriers for such openings can be provided.

Fire records testify to the unquestionable value of standard fire walls and the millions and millions of dollars in property values which these walls have saved.

With values concentrated in large manufacturing and storage areas running many times greater now than in the past, and a look into the future indicating that this trend may be intensified, the importance of effecting positive fire control and value limitation by area sub-division through the use of fire walls, cannot be too strongly emphasized.

Not only should industry protect itself and its stockholders against the possibility of a disaster-type loss through area control, there is likewise responsibility for all who contribute to the construction of new buildings, including industrial architects and engineers, to encourage the use of suitable fire walls for area sub-division. Those manufacturers who now have "jumbo fire areas" should take a second look at their properties to assure that existing plants are not seriously threatened by a disaster-type loss.

Pittsburgh, Pennsylvania, May 18. (*Photo by Al Herman, Jr., Pittsburgh Press*) Two street cars were destroyed and a carbarn was heavily damaged when fire started from a short circuit in a "work car." The fire jumped from the car to the wooden roof of the unsprinklered and undivided building, 87,500 square feet in area. First apparatus responding found the building completely involved, and the battalion chief sent in five additional alarms in rapid succession. The loss was estimated at more than $240,000.

Albany, New York, May 19. (*Wide World Photo*) A hot rivet dropped on oil-soaked timbers, started fire in this railroad bridge across the Hudson River. Six engine companies, two ladder companies and a rescue truck were among the apparatus which responded to a telephone alarm which was delayed while workmen attempted to extinguish the fire. The nearest hydrant was a 1,000 ft. distant, and the fire warped rails and damaged the bridge draw mechanism before being controlled.

FIRES in the News

Springfield, Missouri, June 28. Since Missouri is one of the six states which does not restrict the sale and use of fireworks, this supermarket featured a display near the check-out counter. A Roman candle was picked up by a clerk and accidentally discharged into the display. Explosions, smoke and fire filled the 20,000 square-foot store area. Two girls and a woman suffocated but 25 employees and 3 of the customers escaped. The loss was estimated at $250,000.

Hamilton, Ontario, June 14. (*Photo by D. Jehan, Hamilton Fire Dept.*) Just before the night watchman was to report for duty children playing with matches started fire in this lumber yard. Inadequate spacing between lumber piles and between piles and buildings allowed fire to spread through most of the materials and structures in the yard. Despite response of five pumpers, two ladder trucks, a rescue truck and two emergency cars and use of a watertower and deluge set, loss amounted to approximately $400,000.

East Brunswick, New Jersey, May 28. (*Photo by William C. Peck*) While a tank truck was being filled a 10,000-gallon underground gasoline tank overflowed in a service station on the New Jersey Turnpike. Gasoline spread beneath two cars in the adjacent parking area and was ignited by a flare marking construction works. Police are shown in this photo using dry chemical and foam extinguishers. Three occupants in the car at left were pulled to safety by service station attendants, but one died of severe burns.

Making the Most of the Fire Critique

A discussion of how the post-fire review may be used for training fire fighters, by NFPA member Chester A. Peyronnin, Jr., Consulting Mechanical Engineer, New Orleans, Louisiana, and Instructor in Fire Protection, Tulane University.

MANY fire departments miss an important training phase by failing to follow up actual fires with a critique or review of the fire fighting action. Mistakes are often made in the haste of fire combat which must be analyzed and corrected, if the department is to improve its fire fighting operations, and a review of the fire problem can highlight the good and not-so-good operational sequences.

Perhaps more important are the lessons in strategy that can be learned from such analyses of fires. A good post-fire analysis allows fire fighters to profit from the experience of the fire chief who was in charge of the action, and the fire department which has regular critique sessions will probably develop the best trained officers.

The purpose of such reviews is not to criticize decisions which were made during a fire, when commands probably were given on the basis of what could be seen, or supposed, and decisions made more from experience than from analysis of the action.

The objective of any fire critique, or analysis, should be to provide a training media for firemen, and less experienced officers. There are two basic types of analysis, one for staff officers and the other for firemen. The two groups are interested in different aspects of fire combat. The officers are probably interested in learning the work of the chief and other top officers and the firemen in bettering their skills and learning the duties of company officers.

Whoever is responsible for planning the critique should have access to all facts. Inspection reports of the building or property involved by the fire should be studied. The fire chief and company officers should be questioned about the numerous activities at the fire. Other outside witnesses, such as watchmen and police officers, may help with additional facts. A map of the fire site should be prepared on which all important details can be drawn such as buildings, fire company locations, hose lines, water supply, hydrants, and streets. Other material such as photographs, newsreels, and fire equipment, if necessary to the discussion, will often prove helpful.

It is necessary to give complete details on the buildings, streets, hydrants, entrances, and other physical features which play a part in the fire. Existing weather is important because it may have helped or hindered the fire fighting activity. The condition of the fire at all stages should be explained, that is, when it was discovered, when the first units arrived, and when it was controlled.

The chief can tell how he actually sized up the fire, why he thought it would react in a certain manner, and why he decided to fight it as he did. His fire fighters will have their own ideas as to what should have been done and these can be compared with what actually happened.

Unit officers should explain what their individual tasks were, so that the group will get an idea of the fire from an overall standpoint. Often engine company personnel do not have any idea of what the truck companies had to do in order to ventilate, or what the rescue squads were up against in a particular situation. Many fire fighters do not realize what their companion departmental units do during a major fire. For instance, one engine company may know that they could advance into an attic, because the truck company had ventilated the peak, but they may not know that another engine company kept the fire from jumping to another house. Overhaul and salvage phases also should be discussed.

The last, and most important phase of the critique, is the question and answer period. Questions will arise on many aspects of the fire because the men will not have seen

the operation in its entirety. These should be answered and discussed in detail. If some questions should seem too basic it is usually because the men want to be re-assured on some point or need clarification. It is better to review a point several times than to pass over it without the answer being clearly understood. Many men hesitate to ask questions because they think that it will reveal their ignorance of something that they should know. It is a wise reviewer than can set the men at ease and overcome this hesitation.

In the suggested outline below are some ideas as to what should be included in any analysis. Reference should be made to the reports issued by the National Fire Protection Association and several inspection bureaus on the more important fires. Although these are primarily intended to make recommendations for better fire protection and prevention, they do provide an example of what a good analysis should accomplish.

If analyses and critiques are held on a regular basis after every major fire or on a review basis for smaller fires they will prove very helpful in improving the techniques of the fire officers. (*Other information for training fire officers may be found in Lloyd Layman's book "Fire Fighting Tactics," obtainable from NFPA—Ed.*)

National Fire Protection Association

FIRE REPORT

Mail promptly to NATIONAL FIRE PROTECTION ASSOCIATION, 60 Battymarch Street, Boston 10, Mass.

Date and Location

Date of fire ..... Day of week ..... Time ..... A.M. ..... P.M.
Location of property (Street, City, State) .....
Name of principal tenant .....
Type of occupancy (Give specific use of property) .....

Building Involved (If not a building describe on back)

Length ..... Width ..... If irregular shape give Sq. Ft. Area of Ground Floor ..... Height ..... No. of Stories .....
Walls (Wood, brick, concrete, etc.) ..... Floor framing (Wood, steel, heavy timber, etc.) ..... Roof framing (Wood, steel, etc.) .....
Floor covering (Wood, concrete, terrazo, etc.) ..... Roof covering (Asphalt shingle, built-up, etc.) .....

Detection and Alarm

How discovered (Auto alarm, occupant, explosion, etc.) ..... Was discovery delayed, yes or no? .....
If "yes," give reason (No watchman or alarm system, occupants asleep, etc.) .....
How was alarm transmitted? ..... Was transmittal delayed, yes or no? .....
If "yes," give reason (Occupants fought fire, no fire alarm box, etc.) .....
State if property operating or not, vacant, under construction, etc. .....
If possible, estimate time fire burned before discovery .....

Origin and Extent of Fire

Room or place where fire started ..... Which story? .....
Was fire confined to place of origin, yes or no? ..... If "no," give extent within building .....
.....
Did it spread beyond building of origin, yes or no? ..... If "yes," what other property was involved? .....
.....

Cause of Fire

Indicate ignition source and material ignited. If uncertain describe what appears to have happened .....
.....
.....
.....
.....
Was fire purposely set, yes or no? ..... Was arson suspected, yes or no? ..... Report result of investigation above.

Public Fire Protection

Response (no. of units): Companies ....., Engines ....., Ladders ....., Reserves or squads ....., Other .....
No. hose streams used: 1½-in. ....., 2½-in. ....., 4½-in. ....., Booster .....
Was there a prearranged mutual aid plan, yes or no? ..... Was mutual aid used, yes or no? ..... If "yes," give names of other fire departments responding .....

Private Fire Protection

Automatic sprinklers, yes or no? ..... Type (Wet, dry, deluge, etc.) ..... Supervised, yes or no? ..... No. heads opened .....
Effect of sprinklers: Extinguished fire, yes or no? ..... Held fire in check, yes or no? ..... Unsatisfactory, yes or no? .....
Reason for unsatisfactory sprinkler performance .....
Was fire department connection used, yes or no? ..... If "no," explain .....
Automatic fire detection system, yes or no? ..... Type (Rate of rise, heat temp., etc.) ..... Central station supervised, yes or no? .....
Was performance satisfactory, yes or no? ..... If "no," explain .....
Watchmen at time of fire, yes or no? ..... Supervised, yes or no? ..... Did he make regular rounds, yes or no? .....
If "yes," give frequency of rounds and any pertinent particulars .....
Watchman performance satisfactory, yes or no? ..... Reason for unsatisfactory performance .....
.....
Extinguishers used (Number, type, size and effectiveness) .....
Other private protection used (Standpipe hose, fixed CO_2, etc., and effectiveness) .....
.....
If lightning was cause of fire, was building rodded, yes or no? ..... Was lightning protection in good condition? .....

Casualties and Property Damage

Loss of life (State age and sex) ..... Cause of loss of life .....
Personal injury ....
Sound value of buildings $ ..... Estimated building loss $ .....
Sound value of contents $ ..... Estimated contents loss $ .....
Total value $ ..... Estimated total loss $ .....

(OVER)

Here's the form used by many fire departments when reporting major or unusual fires to the NFPA Fire Record Department. The various sections or the report request specific information on the date and location of the fire; description of the building or structures involved; detection and alarm systems; origin and extent of fire; fire cause; description of public and private fire protection; casualties and property damage which occurred; structural deficiencies influencing spread of fire; fire protection deficiencies and contents features which influenced spread; record losses, performances of safes and vaults, and description of salvage operations during and after the fire. Fire departments desiring copies for training purposes may obtain limited quantities from the NFPA Fire Record Department.

SUGGESTED OUTLINE FOR POST-FIRE ANALYSIS

I. Fire location (using a map)
   a. Physical layout
      1. Types and sizes of buildings involved.
      2. Streets, alleyways, and access routes.
      3. Water supply facilities.
      4. Obstructions such as fences, wires, etc.
      5. Adjoining structures which enter problem.
   b. Occupancy
      1. Nature of business.
      2. Operation or processes involved.
      3. Hazards peculiar to this operation.
   c. Conditions
      1. Weather.
      2. Wind direction.
      3. Time.

II. Origin and spread of fire
   a. Point of ignition and initial cause of fire.
   b. Factors aiding or limiting spread.
   c. Alarm, when given and by whom.
   d. Extent of fire at time of alarm.
   e. Hazards imposed by smoke, fumes, or explosion possibility.

III. First response units
   a. Disposition of units.
   b. Condition of fire upon arrival.
   c. Immediate actions.
   d. Additional alarms, when struck and by whom.

IV. Chief's analysis
   a. Condition of fire upon arrival.
   b. Opinion as to probable spread of fire.
   c. Preliminary analysis and disposition of units.
   d. Method of attack and reasons.
   e. Precautions taken to prevent spread.
   f. Consideration of alternate line of defense.
   g. Realization that fire was under control.

V. Unit Action (Each company)
   a. Duties performed.
   b. Accomplishment of duty.
      1. Special problems.
      2. Hindrances to men.
      3. Risks, chances, or gambles taken which could have failed and altered the outcome.

VI. Overall analysis
   a. Disposition and number of hose streams.
   b. Ventilation.
   c. Rescue operations.
   d. Outcome (burnout or extinguished)
   e. Statistics, number of men involved, water used, equipment used, etc.
   f. Special problems.
      1. Special calls for additional men, or equipment from repair shop, or neighboring departments.

VII. Overhaul and Cleanup
   a. Decisions to demolish walls or buildings.
   b. Overhaul of debris.
   c. Salvage operations.
   d. Drainage problems.
   e. Restoration of protection.
   f. Contact public utilities.

VIII. Question and Answer Period

FIRE DEPARTMENTS: Save money now!

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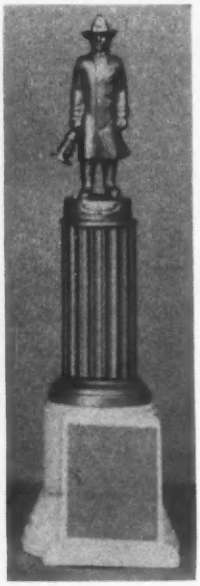

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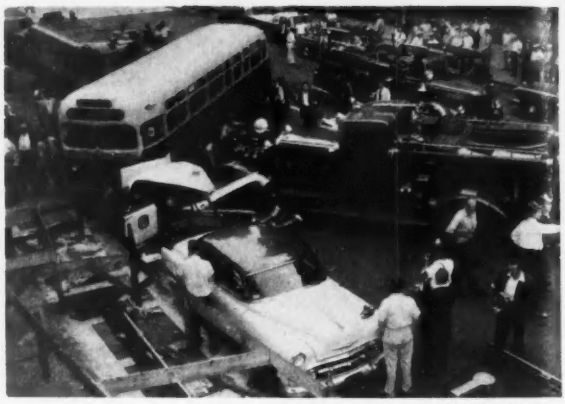

Wide World Photo

Multiple Collision Leads to New Campaign

A THOROUGHLY smashed taxi cab rests between the bus and the New York City Fire Department pumper in this picture, as the climax of an 8-car collision in the City's theatre district on June 23. Ten persons suffered injuries in the accident, which caused Fire Commissioner Edward F. Cavanaugh, Jr., to order a new "all out" campaign against motorists who obstruct fire apparatus in midtown Manhattan.

The incident occurred while a ladder truck and two pumpers from Engine Company 65 were responding to an alarm for an explosion and fire in a dry cleaning shop. The ladder truck passed through an intersection, followed by the pumper shown above. An "out-of-state" driver allowed the ladder truck to pass, but then started to move her auto through the intersection, without realizing that the pumper was also approaching. Her car hit this vehicle's left front wheel and was spun around twice. The pumper careened into crowded two-way traffic on Seventh Avenue, hit one taxi cab, (which in turn struck another auto), clipped a headlight off another passenger car, then smashed the cab (above) into the bus, and all three vehicles came to rest against two unoccupied passenger cars parked at the curbing. The driver of the smashed cab suffered only a bruised head and ankle, while his passenger, a 62-year-old woman received a broken shoulder and two broken ribs. Eight other persons, including the driver of the pumper, Fireman Andrew J. Plunkett, required first aid treatment or hospitalization.

Commissioner Cavanagh stated that on July 1, Assistant Chief Edward Connors would establish a "summons serving" campaign for motorists whose actions endanger fire fighters responding to alarms. Fifteen "light duty" members of the Department have been selected to ride apparatus responding to alarms in mid-Manhattan to give Municipal Court summonses to motorists who fail to pull over to a curb and stop when fire apparatus is approaching.

Preliminary investigation indicated that in this multiple accident, three private vehicles and the bus, which were involved in the collision, failed to pull to the curb and stop. While responding to the same alarm, Deputy Chief James Wood almost had his car overturned by another passenger car which crossed his path at high speed, despite the warning bell, siren and flashing red lights.

1955 National FPW Slogan:

"DON'T GIVE FIRE A PLACE TO START"

WHAT'S YOUR IDEA FOR '56? (see VI inside)

OFFICIAL ENTRY BLANK

Municipal

1955 FIRE PREVENTION WEEK Contest

Sponsored by the

FIRE PREVENTION AND CLEAN-UP CAMPAIGN COMMITTEE of the NATIONAL FIRE PROTECTION ASSOCIATION

City/Town

(PRINT OR TYPE)

State/Province

Population Class (see back page)

Date.....

Organization.....
(print or type)

Street Address ..... Zone No.....

★ ★

This is your report about your Fire Prevention Week activity. Fill it out as completely as possible and return with supplemental material (see back page) to Robert W. Schuette, Secretary, Fire Prevention and Clean-up Campaign Committee, National Fire Protection Association, 60 Batterymarch Street, Boston 10, Mass., *by November* 30, 1955.

Canadian Entries should be returned to your Provincial Fire Marshal or Fire Commissioner.

Municipal

Date.....19....

City/Town .....State/Province .....Pop. Class....

Is Fire Department (check one) paid....partly paid....Volunteer? .....

Name of person submitting entry .....Title .....

Organization .....

Mailing Address .....

Do you want entry returned?.....(Attach shipping instructions, otherwise entry will be returned express collect)

I PLANNING FOR FIRE PREVENTION WEEK (20 points)

1. What organization was principal sponsor of your FPW campaign (fire department, chamber of commerce, Grange, etc.)? .....
2. List cooperating organizations and individuals and describe their part in the campaign .....
   .....
3. When did this year's FPW planning group first meet? .....
   and how many meetings did they hold altogether? .....
4. If there was one central theme to your campaign this year, what was it? .....
   and what over-all objectives did you hope to accomplish? .....
   .....

II FIRE PREVENTION WEEK YOUTH AND SCHOOL ACTIVITIES (25 points)

1. In what grades is fire prevention taught in schools? .....
2. If there were FPW poster projects, how many participants? .....
3. If there were FPW essay projects, how many participants? .....
4. How many home inspection blanks distributed? .....
5. In how many schools were fire drills conducted? .....
6. Briefly summarize activities of local youth groups such as Boy, Girl Scouts, 4-H, Jr. Fire Departments, etc.
   .....
   .....
   .....
7. Number of Boy Scouts completing Firemanship course .....Number of Girl Scouts completing Home Health & Safety course.....Number of Camp Fire Girls winning Citizenship Honors in Fire Prevention .....

III COMMERCE, INDUSTRY AND CIVIC COOPERATION (20 points)

1. Number of fire prevention addresses to service, civic clubs or other organizations .....
2. If there was an FPW parade, describe it .....
3. Number of window displays in stores, offices, etc. .....
4. Column inches of FPW text in local house organs .....
5. How many local vehicles (city trucks, transit cos., etc.) displayed FPW banners? .....
6. FPW contest (poster, slogan, letter, etc.) conducted by local business and industrial groups? .....
7. How many employers scheduled regular FPW observance? .....

8. How many local advertisers made mention of FPW in newspaper advertising? .....magazine advertising? .....radio and TV advertising? .....

9. How many demonstrations by local industrial fire brigades? .....

10. Civil Defense FPW activities? .....

11. Any novel promotions by local commerce and industry? (Describe briefly) .....
.....
.....

IV FIRE PREVENTION WEEK PUBLICITY (20 points)

1. Did Mayor or City Manager issue Fire Prevention Week proclamation? .....

2. Column inches FPW material in all local papers: editorial page.....general newscoverage.....

3. Total amount of time devoted to fire prevention by local radio and TV stations during Fire Prevention Week.....Number of spot announcements.....Number of station breaks?.....

4. Special television features? (Describe length and type) .....

5. How many churches announced Fire Prevention Week from the pulpit? .....

6. How many posters displayed?.....leaflets distributed?.....Stickers distributed? .....

7. Any novel FPW publicity devices (Describe briefly) .....
.....

V FPW INSPECTIONS AND CAMPAIGN RESULTS (15 points)

1. Were any fire safety inspections made during FPW? .....
By whom? .....List types and number of occupancies inspected .....
.....

2. Are FPW inspections conducted in addition to regular year-around inspection program? .....
Briefly describe regular program .....

3. What activity or activities do you feel were most successful in this year's campaign? .....
.....

VI YOUR SUGGESTION FOR NEXT YEAR'S NATIONAL FPW SLOGAN

.....
.....
.....

General Information

HISTORY OF FIRE PREVENTION WEEK

Traditionally Fire Prevention Week each year is the full calendar week including October 9, anniversary of the Great Chicago Fire of 1871. It is observed at the same time in the United States and Canada by proclamation of the President of the United States and the Governor-General of Canada.

Fire Prevention Day was inaugurated and first observed throughout the United States on October 9, 1911. It began when the Fire Marshal's Association of North America (now a section of the NFPA) suggested that the Fortieth Anniversary of the Great Chicago Fire be set apart for bringing before the public the much-needed lesson of fire prevention. In August 1916 the National Fire Protection Association Committee on Fire Prevention Day was formed. And in 1920, this committee succeeded in persuading President Wilson to issue the first National Fire Prevention Day Proclamation. However, it was not until 1922 that the whole week containing Fire Prevention Day (October 9) was officially proclaimed "Fire Prevention Week" by President Harding.

PURPOSE OF FIRE PREVENTION WEEK CONTEST

The contest stimulates competition and encourages the use of Fire Prevention Week as a "springboard" for year-around fire prevention programs. It is judged solely on the basis of each entrant's sincerity and completeness in the promotion of Fire Prevention Week among municipalities and in the conduct of year-around fire prevention activities among industrial and governmental facilities.

ENTRY DIVISIONS

There are three general divisions in this contest.

MUNICIPAL (Red Blank)

Any city or town in the United States and Canada may enter this division.

UNITED STATES cities and towns are divided into these seven classes:

Class I — 500,000 population and over
Class II — 250,000 to 499,000 population
Class III — 100,000 to 249,000 population
Class IV — 50,000 to 99,000 population
Class V — 20,000 to 49,000 population
Class VI — 5,000 to 19,000 population
Class VII — Under 5,000 population

Competition is within each population class in the nation as a whole and within each state regardless of population class.

CANADIAN cities and towns are divided into these six classes:

Class A — 100,000 population and over
Class B — 25,000 to 99,000 population
Class C — 10,000 to 24,000 population
Class D — 5,000 to 9,000 population
Class E — 2,500 to 4,000 population
Class F — Under 2,500 population

Competition is within each population class within each province except the first thirty winners and the Grand Award winner which are chosen from all Canadian entries regardless of population class.

Two Grand Award winners are picked from all municipal entrants each year — one in the United States and one in Canada. The thirty best entries from each country will be listed in order of score.

GOVERNMENT (Blue Blank)

This division is open to all agencies and service installations of the U. S. and Canadian governments. This will include the Air Force, Army, Navy, Coast Guard, Department of National Defense (Canada) and such installations as are maintained by the U. S. Veterans Administration, Atomic Energy Commission, etc. (Atomic Energy Communities which now are separate municipalities should enter the contest under "MUNICIPAL".) Competition is within separate agency and service classifications, except Canadian, and is based upon year-around fire prevention activities. Facilities protected by a consolidated fire department may submit either separate or consolidated entries.

INDUSTRIAL (Green Blank)

This division is open to all industrial plants in the United States and Canada. Contest emphasis is on year-around fire prevention activities.

ENTRY REQUIREMENTS

Answer all questions completely. Back up your answers with as much material as possible. This to include reports, letters of explanation, photographs, newspaper clippings and other appropriate material — following the order of the questions. Put your best foot forward. Include everything that will show the judges how much you did and how well you did it.

ENTRIES MUST BE IN THE NFPA OFFICE BY NOVEMBER 30, 1955 — SEND TO:

★ ★

Robert W. Schuette, Secretary
Fire Prevention and Clean-Up Campaign Committee
National Fire Protection Association
60 Batterymarch Street
Boston 10, Massachusetts

★ ★

Use convenient NFPA shipping labels enclosed. Send for more labels if you need them.

In Canada send your entry to your Provincial Fire Marshal or Fire Commissioner.

CHAMPION FIRE APPARATUS

500 GALLON PUMPER

750 GALLON PUMPER

When you and the other officials of your town purchase a Darley Champion Fire Apparatus you are giving your community the best fire protection money can buy, and your taxpayers will like the savings.

Because we make both Fire Pumps and Fire Apparatus, we can and do give you everything of the best and save you money too.

When buying Fire Apparatus for your community, check and compare the Darley Champion with any other make. We welcome your comparisons first, and then our low quotation will surprise and please you even more.

A few Territories open for Sales Representatives. Write us.

Write for Fire Apparatus Booklet

AT YOUR SERVICE: Sales and Service Representatives — East, Midwest, North, South
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High Pressure Fog Pumps

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Front and Midship Pumps

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Get into action FASTER with...

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SUPER FYR-FLEX 600 & 400

it's made with DACRON! The new, stronger, synthetic fibre load-carrying "filling" cord.

it's 25% LIGHTER! Easier to carry . . . easier to handle. Gets into action faster!

it's more FLEXIBLE! Easier to coil and uncoil . . . cuts loading time. Permits storing more hose in truck bed.

it's 50% STRONGER! 600 & 400 lb. test . . . withstands 50% more pressure than any hose of the same diameter.

For faster fire fighting action, get Fyr-Fyter's new Super Fyr-Flex . . . the fire hose that now outmodes conventional hose! Its exceptional strength without bulk, made possible with Dacron reinforcing "filling" cord, plus its lightness and flexibility, gives you top performance efficiency. And for longer life and economy, Super Fyr-Flex provides a new high in resistance to heat, chemicals, water absorption, mildew, abrasion, and wear. Plan now to take advantage of the performance extras you get in Super Fyr-Flex fire hose . . . write for complete information today!

TEAR OUT THIS COUPON AND MAIL WITH YOUR LETTERHEAD TODAY!

☐ Send full details on Fyr-Fyter Super Fyr-Flex Hose.

☐ Send your 60-page Fyr-Fyter Accessory Products Catalog.

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DEPT. 5 FF-2

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REPRESENTATIVES IN PRINCIPAL CITIES

BRANCH OFFICES: New York, Boston, Philadelphia, Chicago, Atlanta, Dallas, San Francisco, Portland, Seattle.

Dates to Remember

Arizona: The Arizona State Fire School will be held at Phoenix Technical School, October 20–22. Write to Director Jake Siken, Battalion Chief, Phoenix Fire Department.

Indiana: The 22nd Annual Indiana State Fire School will be at Purdue University, September 13–16.

Maryland: The 22nd Annual Short Course will be held at the University of Maryland, September 6–9. Write to Robert C. Byrus, Director, Fire Service Extension, University of Maryland, College Park, Maryland.

Michigan: Alert Firemens Association's second annual Volunteer Firemen's Fire Training School to be held September 10th & 17th in Lansing. Write to Chief Earl Miller, Gen. Chairman, Lansing Township Fire Department, Lansing, Michigan.

Montana: The State Fire School will be held at Polson, August 24–27. Write to Chief Clayton Brown, Polson Fire Department, Polson.

Ohio: The Ohio State Fire School will be held at Columbus, September 12–16, Write to Robert M. Reese, Supervisor, Trade & Industrial Education Service, Department of Education, 220 S. Parsons Ave., Columbus, Ohio.

The annual conference of the Ohio Fire Chiefs' Association will be at the Commodore Perry Hotel in Toledo, August 18–20. Write to Chairman A. F. Papenhagen, 545 North Huron Street, Toledo 5,

Ohio State Firemen's Association Convention, August 19–20. Write to General Chairman, Chief Robert A. Metz, 3673 Eyrick Ave., Mack Fire Dept., Cincinnati 11.

Pennsylvania: The Pennsylvania State Fire School is now in operation at Lewistown. Courses scheduled include: Standard Fire Fighting; Advanced Fire Fighting- Annual Fire School Round-Up, August 1–5; Fire Service Instruction Course, August 8–12; Fire Apparatus Operation and Maintenance Course, August 22–26; The same sequence of courses will follow during the months of September and October. Further information may be obtained from Edgar A. Spotz, Advisor, Fire Service Training, Public Service Institute, Lewistown, Pennsylvania.

Tennessee: The 12th Annual State Fire School will be held at Middle Tennessee State College, Murfreesboro, August 22–26. Write to Homer S. Elkins, Director, Tennessee State Fire School, 215 Chestnut Street, Chattanooga 3, Tennessee.

Wisconsin: The State Fire School at Madison will be held on August 15–17. Contact H. C. Thayer, Chief, Trade and Industrial Education, State Board of Vocational and Adult Education, Madison.

Flammable "Coonskins"

AN UNWELCOME product in the current "Davy Crockett" merchandise for children is the highly flammable, shredded paper "coonskin" cap which has appeared in some sections of the country. In New York State, Director of Safety Michael H. Prendergast advised fire chiefs to hunt out the imitation caps and "remove them from the market." A memorandum from the Director showed the identifying emblem found on the cap, and described the material as a shredded crepe-type dark brown paper with black coloring and a green paper lining. The caps had no trade mark or manufacturer's identification. It was reported that the shredded paper was found to burst into flames "in seconds, after the most casual exposure to a lighted cigarette or to any spark."

In New York City, Fire Commissioner Edward F. Cavanagh assigned 400 of the Department's building inspectors to check on novelty and stationery stores and other mercantile establishments where the hazardous material could be sold, to ask merchants to withdraw the caps from sale. In Rochester, Syracuse and Albany, fire chiefs issued warnings to parents and advised them to turn in such hats to the fire stations.

Alabama Training

R. HENRY RYAN, Alabama State Instructor of Fire Service Training, reports that 154 men from 66 fire service organizations attended the 19th Annual Alabama State Fire School in University, May 30 to June 3. Morning sessions were generally conducted by guest speakers, while afternoon sessions were devoted to practical training in basic fire fighting evolutions such as handling hose and ladders, operating pumpers, rope and salvage work, first aid fire fighting and driver training.

Twenty-two paid and 11 volunteer fire departments were represented in the training classes, in addition to personnel from industrial fire brigades, U. S. Government fire brigades, and State and educational institutions. State certificates were issued to all of the 154 trainees for completing the course.

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are like ham without eggs!

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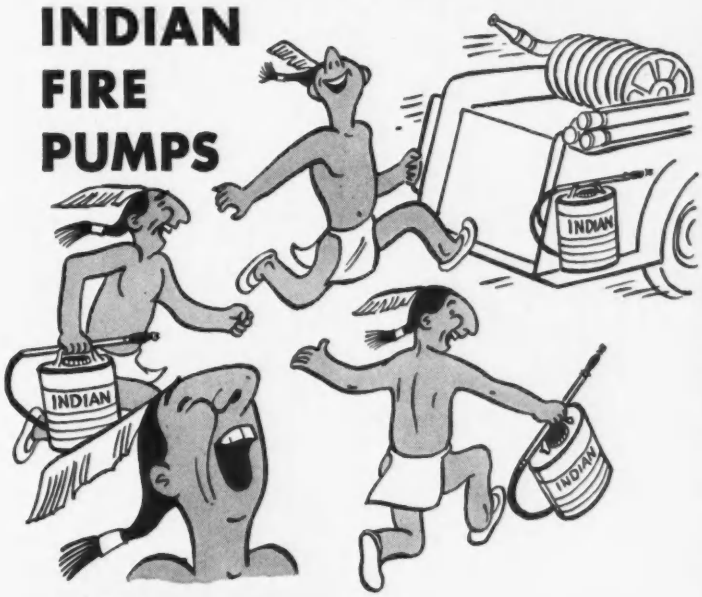

INDIAN FIRE PUMPS are approved by Underwriters' Laboratories. When you choose an INDIAN you select the BEST!

"Choice For Quality The World Over"

More and more new apparatus is coming through with INDIAN FIRE PUMPS mounted as standard equipment. There are good reasons why so many fire protection agencies insist upon having these *"one man fire depts."* on their trucks.

Enjoy the time and effort saving advantages which come from having INDIAN FIRE PUMPS available for all class "A" and many class "B" fires and small oil fires.

Fire Chiefs tell us that "INDIAN FIRE PUMPS *alone* will handle 40% of their calls and are worth their weight in gold."

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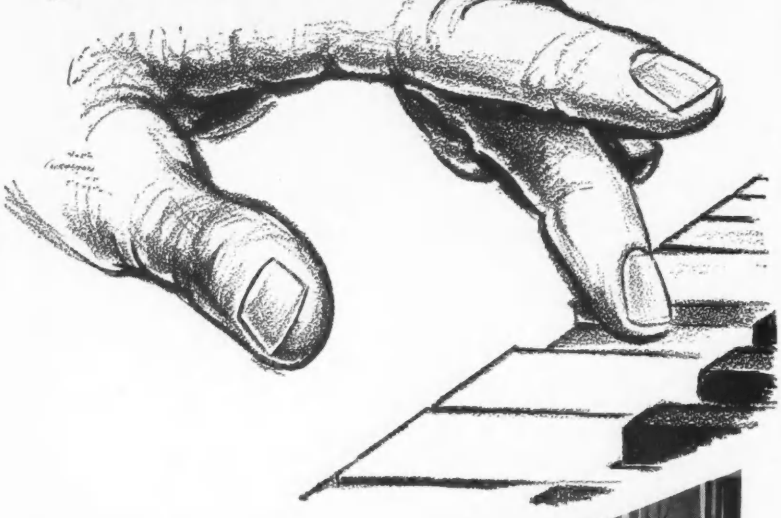

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Your equipment supplier has samples of BLACKINTON'S fine badges — ask to see them the next time he calls.

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BADGES AND UNIFORM INSIGNIA FOR EVERY SERVICE AND INDUSTRY

Volunteers Hold 66th Convention in Hudson Valley

THE Hudson Valley Volunteer Firemen's Association, Inc., held its 66th Annual Convention in Kingston, New York, June 16–18. Host Fire Chief was Joseph L. Murphy, who, this year, is retiring after 56 years of service in the Kingston Fire Department. Closing the 3-day session was a parade which featured more than 8,000 volunteer firemen and members of the Ladies' Auxiliary from Hudson Valley and State of New Jersey. The parade included more than 115 fire companies, 90 musical groups, and also witnessed by more than 35,000 people from the vicinity of Kingston.

Program speakers included: Michael H. Prendergast, Director of the Division of Safety, State of New York; Superintendent Levi L. Rogers of the Firemen's Home at Hudson, N. Y.; Paul R. Lyons, Asst. Mgr. of NFPA Fire Services Department; retiring President Anthony Delisio of Hudson Valley Volunteer Firemen's Association, Inc.; Chief Edward Maines of Port Ewen Fire Department, and Charles M. Fales, Secretary of the Association and newly elected President William Atkiss.

The Association plans to conduct a "Hudson Valley Day" at the Firemen's Home, Sunday, October 2, 1955, which will include a parade of fire companies and apparatus.

Oil Extraction Plants

OCCUPANCY Fire Record FR55–6, "Oil Extraction Plants," is a study of fires associated with the extraction of vegetable and fish oils. The four divisions of the fire record are: solvent extraction expeller extraction, raw products handling and storage, and finished products handling and storage.

This illustrated 12-page pamphlet is the fifteenth in the current series of occupancy fire records prepared by the NFPA Fire Record Department. Others in the series are: Electric Generating Plants (55–1); Truck Terminals (55–2); Motor Boats (55–3); Printing Plants (55-4); and Restaurants ((55–5).

Single copy price of any of these records is 50 cents. Discounts are given for quantity purchases. Ask for the ones you want by referring to the pamphlet number.

IAFC Conference

THE 82nd Annual Conference of the International Association of Fire Chiefs will be held in Omaha, Nebraska, September 19–22. Headquarters will be at the Hotel Fontanelle, while exhibits will be at the Omaha Civic Auditorium.

The September issue of FIREMEN magazine will feature a story describing the main points of interest of the Omaha Fire Department, headed by Chief Eugene Fields. Featured on the program will be addresses by Mrs. Lou Gehrig, representing Muscular Dystrophy Associations of America, Inc.; Governor Val Peterson, Federal Civil Defense Administrator; Warren Y. Kimball, Manager, NFPA Fire Services Department and Miles E. Woodworth, NFPA Flammable Liquids Engineer; Chief Grey C. Barnet, President of the IAFC; B. Richter Townsend, new General Manager (see page 29) of IAFC, and many other representatives of the fire service.

Further information may be obtained by writing to the Program Chairman of the Conference, Chief Beverly R. Wade, Kentville, Nova Scotia.

New Reprints

TWO articles in the July 1955 NFPA *Quarterly* are now available in reprint form. Each is 12 pages with the unit price of 25 cents per copy (discount for quantity orders). They are:

"The Lumber Yard and the Community," by William G. Schultz, Chief Engineer, Lumbermen's Mutual Insurance Company, Mansfield, Ohio. This is a discussion of the hazards, responsibility, and protection requirements for lumber yards documented with case histories of fires affecting such properties.

"A Dry Chemical Extinguishing System," by Arthur B. Guise and James A. Lindlof, Ansul Chemical Company, Marinette, Wisconsin. The first Underwriters' Laboratories approved dry chemical extinguishing system has opened new protection methods for flammable liquid hazards. This paper discusses the development and operating principles of this new system including engineering requirements for piping, nozzles, application rates and total flooding requirements.

ELKHART'S PORTABLE

deluge NOZZLE

Here is Elkhart's new Portable Deluge Nozzle. Automatic clapper valves in all inlets permit attaching extra hose lines while nozzle is in operation. Ball bearing joints assure easy operation of the turret which revoles 360°. An eight inch diameter hand wheel with 3″ revolving handle, worm gear operated, directs stream up or down through an elevation of 90°. Locks to the desired elevation and horizontal position. "O" ring seals on all movable connections with Zerk fittings for lubrication. Free straight water way without obstructions reduces friction loss to a minimum. Stream shapers in 3″ extension pipe eliminate feathering assuring a solid stream.

Safe—Hardened steel spikes on base prevent creeping, turn-over or any movement. The unit remains stationary. It is equipped with two carrying handles.

Inlets: 3—2½″ inlets with 3 lug X-Trude swivels. **Standard Threads:** Top Tip—Underwriters' Playpipe. Middle Tip—2½″ National Standard. Body Discharge End—3½″ Iron Pipe. **Stock Tip Sizes:** 1½″, 1¾″ and 2″ Pin Lug type. **Finish:** Brass body painted red. Swivels, discharge pipe and tips polished brass or chromium plated. **Weight:** Including tips and holder—148 lbs. **Length:** Including tips—53 inches. **Accessories:** Running board mounting bracket. Top mount fixture for permanent installation on apparatus.

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With Amazing Performance

HALE Portable Pumping Units

	U. S. Gallons Per Minute	Disch. Press. Lbs. Per Sq. In.
FZZ	60 100	90 70
FZ	50 300	60 10
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*A New Unit

These 3 pumping "Workhorses" provide amazing volumes and pressures for efficiently fighting a great variety of fires. All three units are conveniently portable by two men; can be easily mounted or carried on any type of apparatus for fighting fires while in motion from booster tank; often used to pump from inaccessible water source into major pumper, or to fight fires direct.

Write for Circulars on Models FZZ, FZ and new HPZF—at least one of which is sure to meet your fire fighting requirements. Ask for demonstration; no obligation.

Fire Pumps in All Standard Capacities

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BEACON RAY LIGHT

All over the country, the outstanding fire departments were the first ones to see the marvellous advantages of increased safety provided by FEDERAL'S BEACON RAY light. This advantage is so obvious, thousands of departments have followed suit and have equipped their apparatus with the BEACON RAY.

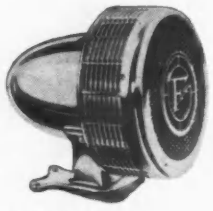
Now, conspicuous absence of the BEACON RAY raises doubts in the public mind as to efficiency and modernity. This terrific visual warning light is becoming accepted by the public as "the light" for emergency vehicles.

Is your department a "stand out", or a "hold out"?

You are familiar with BEACON RAY and what it can do — don't delay, don't postpone action any longer.

SPECIFY FEDERAL BEACON RAY lights and FEDERAL Q-2 COASTER SIRENS on your apparatus.

Full descriptive literature on sirens and lights will be promptly forwarded on request.



FEDERAL Q-2
COASTER SIREN

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British Fire Law

A SECOND edition of the "Manual of Fire Service Law" by Peter Pain, M.A., has been published, dated 1954. This 352-page book is perhaps the most convenient source of information about the organization of British fire brigades and fire prevention legislation in the United Kingdom.

Part I, dealing with the Structure and Administration of the Fire Service, traces the development of fire brigade law and discusses the powers and duties of fire authorities, including their power to provide fire departments and to do fire prevention inspection work. Much of Part I is devoted to the relationships of members of fire brigades to fire authorities; and a discussion of pensions and discipline,

Part II, Fire Prevention Legislation, covers factories, dangerous trades, building acts, laws on petrol, and fire protection in ships and harbors. The book is published and distributed by the Thames Bank Publishing Company Limited, Henley Hall, Henley, Suffolk, England. Readers can order a copy by sending an International Money Order for 25 shillings plus sixpence postage, to the publisher.

Oklahoma Arson Seminar

THE first annual Southwestern Arson Investigation Institute is scheduled to be held on the North Campus of the University of Oklahoma, November 2–4, under the joint direction of State Fire Marshal J. Matt Robertson and the Department of Public Safety.

Others participating in the program include representatives from the Oklahoma Fire Chiefs' Association; the Oklahoma City Association of Insurance Agents; National Automobile Theft Bureau; Oklahoma Fire Underwriters Association; Oklahoma Attorneys' Association; Oklahoma Inspection Bureau; Oklahoma Safety Council; Oklahoma Sheriffs and Peace Officers Association; and the Association of Casualty and Surety Companies.

Enrollment fee will be $15. Further information may be obtained by writing to James Robinson, Director of General Studies Extension Division, The University of Oklahoma, Norman, Oklahoma.

"Rescue Practices"

RECENTLY published was the second edition, dated 1955, of "Rescue Practices," Unit No. VIII in the series of fire service training manuals and texts prepared by Oklahoma A & M College, Stillwater, Oklahoma. Compiled by Everett Hudiberg and W. Fred Heisler of the Fire Protection Department of Oklahoma's Institute of Technology, the 56-page, 8½ x 11 in. illustrated publication describes simple rescue techniques and equipment used in the fire service.

Portions of the manual are devoted to situations and incidents where special rescue techniques are applicable; personal protection requirements; and certain rescue procedures, practices and techniques.

The manual was published in cooperation with the Fire Service Training Association, the Fire Prevention Department of the Western Actuarial Bureau, the Oklahoma State Firemen's Association and the Division of Trade and Industrial Education of the Oklahoma State Board for Vocational Education. Like other manuals of the series, it is adopted for fire service training use in 26 states and 3 Canadian Provinces. Copies of "Rescue Practices," Unit VIII, may be obtained for one dollar each by writing to The Fire Protection Department, Campus Fire Station, A & M College, Stillwater, Oklahoma.

IRFAA Convention

THE Eighth Annual Convention of the International Rescue and First Aid Association is scheduled to be held in Alexandria, Virginia, October 27–29. As announced in the June issue of FIREMEN, Rescue Squad No. 1 of the Alexandria Fire Department will, at the same time, be celebrating the 25th anniversary of its organization. Fire Chief Bernard J. Padgett will serve as official host of the convention, while IRFAA President, Phillip O. Rhynas of Toronto, Ontario, will preside at the sessions. Headquarters will be at the George Mason Hotel, while exhibits and other activities will be at the Alexandria Arena. Contests and parades will be held on Saturday, October 29.

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Avail yourself of the many advantages of buying ALL your personal equipment, from head to foot, from one dependable source—from a firm that assumes responsibility for the quality of EVERY item, and that stands back of it with a reputation gained in serving firemen for more than a hundred years. . . . Here is a partial list of the equipment we can supply, promptly. Many other items are described in our Catalog, sent on request.

TURNOUT SUITS RUBBER COATS RUBBER BOOTS
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FOR THE DEPARTMENT,
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The improved Powhatan "Sensible-Lug Couplings" are precision tooled and manufactured of only the best high-grade materials. They set a standard that is "tops" in this specialized field of fire-fighting equipment. The curved surfaces of this modern coupling enable the hose to glide easily over all obstructions, thus preventing snagging, an important safety and economical feature appreciated by those who know.

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Service records prove that Midwestern Striped Safety Coats withstand years of rugged duty . . . offer high safety visibility during the entire life of the garment. There are many imitations but *no substitute* for the workmanship, built-in comfort and longer wear you receive by specifying MIDWESTERN.

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Superior quality, advanced design, exclusive fabric materials and safety features have made Midwestern a leader in the field of firemen's safety clothing. For complete information on our full line, see your Midwestern dealer. A letter to the factory will also bring you literature and material samples for your inspection.

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Manufacturers of the Famous **MACKINAW Safety Coats**

Nothing Mysterious about Governors

(*Continued from page 11*)

sure control will not be accurate, and there may be considerable surge evident in the operation. The vent screw should be removed and oiled and the orifice cleaned before reassembly.

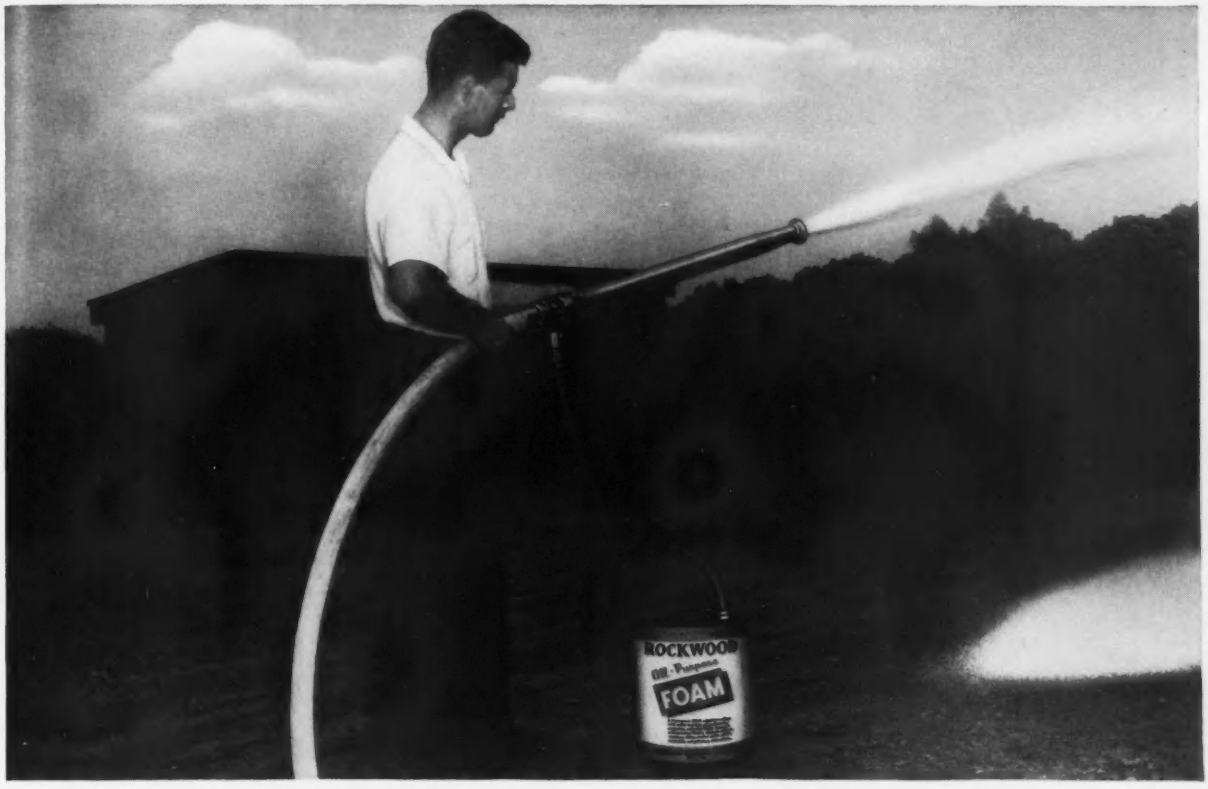
On page 11 is a sectional view of an American-LaFrance governor. The plug at the outer end is first removed, and then the piston assembly. The piston and inside of housing is then cleaned and greased with a light waterproof grease (Lubriplate 210). The governor body assembly can be serviced most quickly by removing it from the mounting bracket after which the plug at the rear end is removed and a $\frac{1}{16}$ inch pin at the forward end of the shaft is removed. The complete interior parts including piston, shaft and spring, can then be removed. The housing and parts should be cleaned, then covered with a light grease such as Lubriplate 210 before reassembly. The governor will then work freely and with excellent control of pressures.

Make sure the linkage from the governor to the throttles is also oiled with a light engine oil (S.A.E. 10W). Lubrication of linkage is important since its freedom of movement definitely affects the rate of pressure rise in the governor operation.

Fire Prevention Standard Recommendations (British)

THIS 157-page book, published this year by Fire Protection Review, Ernest Benn Limited, Bouverie House, Fleet Street, London, EC4, presents a standard system of fire prevention recommendations developed by the Fire Prevention Division of the Kent Fire Brigade under the direction of Divisional Officer V. G. Love. The book was prepared to provide a standard system of reporting fire prevention recommendations. It is stated that when used, the system has resulted in 25 percent increase in the amount of inspections.

Readers may obtain this book by sending an International Money Order for 25 shillings plus sixpence postage to the publisher, Ernest Benn Limited, at the above address.



ROCKWOOD ALL-PURPOSE FOAM can be used to blanket fires in alcohols, ethers, esters, ketones, as well as petroleum products.

Now... one FOAM extinguishes both petroleum and alcohol fires

New Rockwood All-Purpose FOAM does the work of two products. Simplifies training of fire fighting personnel and cuts down fire protection inventory. Rockwood All-Purpose FOAM quickly puts out fires in alcohols, ketones, ethers and similar water soluble materials as well as petroleum derivatives.

Rockwood All-Purpose FOAM reduces fire protection equipment for fire departments and plants which must deal with more than one type of fire hazard, and is ideally suited for Rockwood's SpotPROTECTION or fixed piping systems.

Rockwood All-Purpose FOAM is well suited for use by municipal fire departments, oil refineries, distilleries, chemical and other industrial plants.

Rockwood All-Purpose FOAM liquid with standard Rockwood FOAM nozzle provides the simplest, fastest means for extinguishing alcohol, solvent fires. The FOAM nozzle attaches to a hose connected to the discharge gate of a fire truck, hydrant or interior hose station.

Specify new Rockwood All-Purpose FOAM, put this versatile fire fighter to work for you.

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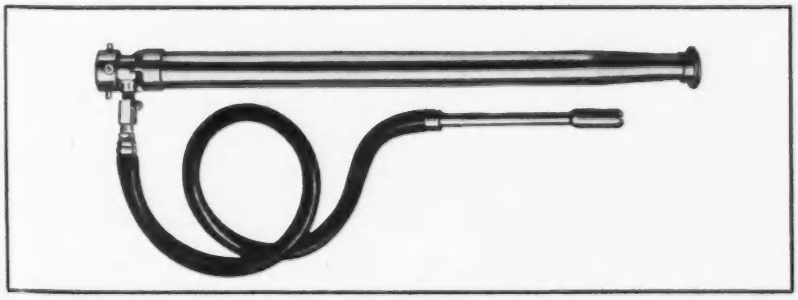
Engineers Water . . . to Cut Fire Losses



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FIRE HOSE WASHER

The new, inexpensive A–Z Hose Washer drains and rinses the hose as it washes. 4 Roto-jets constantly spray hose with clean, fresh water — all sediment is flushed through collecting pan and down the drain. Semi-automatic, the A–Z is operated by just one man. No strain. No fatigue. Turn tables keep the hose OFF the floor. They're excellent for re-loading truck (several lengths may be stacked on each) or loading the hose dryer.

Circul-Air
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The patented, electrically operated Circul-Air hose dryer circulates pre-warmed fresh air through loosely coiled hose at the rate of 5 to 6 air changes per minute. Saves floor space, hard work and lengthens hose life! No other drying method is so fast — so economical — so easy to use.

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Membership Report

A SAMPLING of the diversity in NFPA Fire Department Membership is shown in the names below, which represent the fire chiefs and fire departments which enrolled in NFPA during June. Readers of FIREMEN who want to encourage other fire officers and fire departments to participate in the benefits of NFPA membership, can obtain explanatory material and application blanks from the NFPA Executive Office, 60 Batterymarch Street, Boston 10, Massachusetts.

Alaska: Chief Glenn R. Miller, Moose Pass Fire Department, Moose Pass.

California: Carlsbad Volunteer Fire Department, Carlsbad; Chief Jay M. West, Hawthorne Fire Department, Hawthorne; Chief Robert Webster, Pedley Volunteer Fire Department, Pedley.

Connecticut: Chief Thomas J. Collins, New Haven Fire Department, New Haven.

Louisiana: Chief Frank Crick, Olla Volunteer Fire Department, Olla.

Maine: Rockland Fire Department, Rockland.

Maryland: Susquehanna Hose Company, Havre de Grace; Jessup Volunteer Fire Department, Inc., Jessup.

Massachusetts: Otter River Fire Department, Otter River.

Michigan: Chief Ralph Hemmerly, Bloomfield Township Fire Department, Bloomfield Hills.

New York: Olive Fire Department No. 1, Inc., Olivebridge; Genesee Valley Fire Department, Inc., Rochester; Roosevelt Fire District, Roosevelt; Chief Harold L. Page, Jr., West Henrietta Fire Department, W. Henrietta.

North Carolina: Salisbury Fire Department, Salisbury.

Ohio: Chief Paul La Rue, Lykens Volunteer Fire Department, Bloomville; South Middletown Fire Department, Excello; Chief M. C. Hills, Grafton Township Fire Department, Grafton; Chief Paul W. Crawford, Franklin Twp. Volunteer Fire Department, Summitville; Chief Verner Beaudry, The Ross Twp. Volunteer Fire Department No. 2, Toledo.

Oklahoma: Chickasha Fire Department, Chickasha.

Pennsylvania: Chief Chuck Taylor, Fairview; Lower Burrell Twp. Volunteer Fire Company No. 3, Lower Burrell Twp., New Kensington; Vandergrift Fire Department No. 2, Vandergrift.

Washington: Klickitat County Fire Protection District No. 2, Bickleton.

West Virginia: Chief John Landfried, Ripley Volunteer Fire Department, Ripley.

Wisconsin: Chief Charles J. Morris, Bayside Fire Department, Milwaukee.

Adams "One-Minute"
Hydrant Jet Drain
Drains a Hydrant In 60 seconds

Expels water by air pressure. Operates by means of a 6 or 12-volt motor and air compressor connected to the battery of your service car, truck or tractor.

Just insert hose in water port of hydrant to reach bottom of hydrant barrel, attach fitting to hydrant and plug in air jet valve. In one minute the water is completely expelled.

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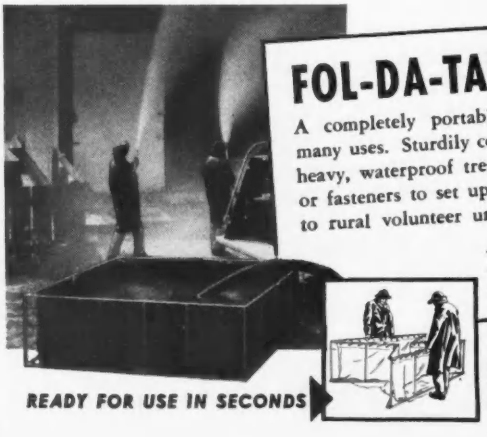

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A completely portable, auxiliary water tank of many uses. Sturdily constructed of steel tubing and heavy, waterproof treated duck. Requires no tools or fasteners to set up or take down. Indispensible to rural volunteer units. Reasonably priced.

★ FOLDS TO 10"x30"x8'3"
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Useful Publicity Kits

EACH year, in cooperation with the International Association of Fire Chiefs, the NFPA prepares and distributes free packets of suggested publicity, which have been prepared by professional writers, for use during Fire Prevention Week. Fire department members of the NFPA, as well as the IAFC membership, are included on the mailing list to receive these packets automatically, and the kits should be in the mails to everyone by the middle of August.

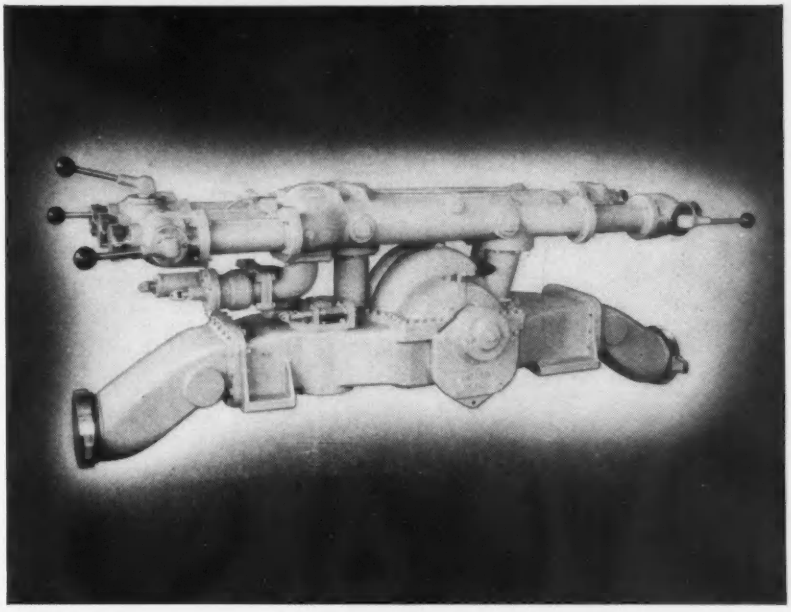
Contents of the kits this year include a five-minute radio talk on the danger of leaving children unattended, or in the charge of untrained baby sitters; press releases on winter heating, on the danger of flammable clothing on youngsters, campaign announcements, children's fire department, flammable liquids; plus a selection of free advertising material on fire prevention available from the Advertising Council.

If you haven't received your free packet by the first week in September, be sure to write to the NFPA Public Relations Department and ask for a kit.

Give the Recruits a Chance

RECENTLY the Woonasquatucket Valley Firemen's League in Rhode Island burned an abandoned house as a fire fighting training exercise. Concerning such training, the following observations by Willard B. Hall, past-president of the Rhode Island State Firemen's Association, who has more than 50 years' experience as a volunteer fireman, should be worthy of consideration by persons responsible for firemen's training activities.

"The last house we burned did not provide us with much technical information, largely due to the limits imposed by time and location, but I think it paid off in experience for the youngsters. We had not realized before that something is lacking if the new recruits have no chance to hold a good stream on a going fire. We have been putting out our practice fires too soon, with the older men directing the hose streams, and the new men only serving as spectators."



Waterous supplies Los Angeles with 2000 GPM pump

● The City of Los Angeles has scored another first!

Already recognized as one of the world's leading Fire Departments in equipment design and efficiency, Los Angeles has just added what is believed to be the first single engine, single pump, 2000 GPM triple combination pumper on the Pacific Coast.

This record rating has been made possible by a WATEROUS two-stage DCD-2000 centrifugal pump similar to the one shown above.

New 2000 GPM pumper built by Crown Body & Coach Corp. has been placed in service in Los Angeles Downtown Headquarters Station

But the DCD offers *more* than great capacity. Like other WATEROUS-built pumps, it is designed to combine dependable performance, long life, and easy maintenance.

For example, oil-lubricated impeller shaft bearings are located *outside* the pump casing, and are completely protected from water and dirt by stuffing boxes, flinger rings, and oil seals.

Split-gland stuffing boxes are also conveniently located outside the casing where they can be adjusted and quickly re-packed without disturbing the rest of the pump.

The entire impeller assembly can be serviced without disconnecting drive lines, transmission, or disturbing the setting of the pump in the chassis. Bronze wear rings can be easily replaced to restore efficiency and maintain new-pump performance for many years.

If you, too, are in the market for new pumping equipment, it will pay you to investigate WATEROUS . . . manufacturer of pumps in capacities from 100 to 2000 GPM.

"Preferred Fire Pump Specifications" has been prepared to help you select the best pump for your community. For free copy, write WATEROUS Company, 42 East Fillmore Avenue, St. Paul 1, Minnesota.

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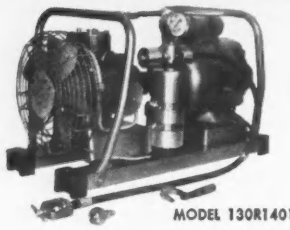
DEPENDABLE PUMPS
SINCE 1886



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Send check or money order in the amount of $3.50 for sample, and convince yourself. You will never buy any other broom. It has many uses. Money refunded within ten days if not satisfied with sample.

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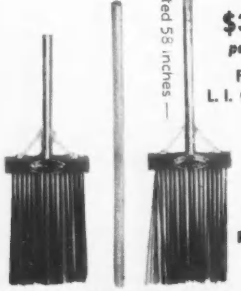

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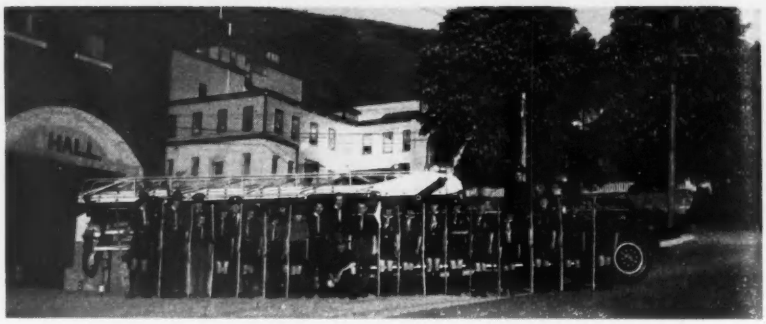

Fire Departments and Boy Scouts

THE increased interest which fire departments are showing in encouraging Boy Scout organizations is represented by these pictures recently submitted to FIREMEN magazine. Shown above is a photograph submitted by Chief Elwin S. Owens of the Nelson, British Columbia, Fire Department (see page 7). The 20 Boy Scouts in this picture represented the sixth, or last class of Scouts who completed this year's 6-week course in fire fighting conducted by the fire department. All of these Scouts were presented with their "Firemen's Proficiency Award" by Chief Owens, Mayor Joseph Kary of Nelson, and District Scout Commissioner Donald Ure.

Pictures below show Boy Scouts who were recently honored by the South Portland, Maine, Fire Department, headed by Chief Horace Jose. Chief Fire Inspector Charles D. Heseltine reports that the Department annually invites all local Scouts who have qualified for the Merit Badge in Firemanship to participate in a "Day at the Fire House." This program has proven an effective means of building interest in this particular Scout award and in encouraging fire prevention. Inspector Heseltine also states that the Department made a movie picture of Boy Scout requirement in 1939, and that of the original group of Scouts two are now regular Fire Department members and several others are members of the South Portland call fire companies.

The Scout Program includes an essay contest which results in the selection of an honorary fire chief and his two honorary deputies. Regulation metal fire chief badges are awarded to these Scouts by the Chairman of the South Portland City Council.

Scouts are also taken on a tour of the Central Fire Station and then participate in a "muster" which includes hose couplings contests and

(Left) South Portland, Maine, Boy Scouts who were given honorary status during the annual event sponsored by the Fire Department included (*left to right*): Honorary Deputy Fire Chief Dennis W. Shibbles, Honorary Fire Chief Robert Schwartz, and Honorary Deputy Fire Chief John A. Heseltine.

One of the groups of Scouts who attended the "day at the fire house," held for all South Portland Boy Scouts who qualified for the Firemanship Merit Badge during the year.

other events. At the conclusion of these contests the fire department demonstrates fire fighting tactics and the Boy Scouts are permitted to try ladder climbing and other evolutions.

Currently, the South Portland Fire Department is refilming the requirements for the firemanship merit badge. This film will run about 20 minutes and will be available for Scout Troop use throughout that section of Maine. The Department has more than 20 other movie films, showing training and fire fighting activities.

IAFC Appointment

THE International Association of Fire Chiefs has announced the appointment of B. Richter Townsend as the new General Manager of the Association, effective August 1, 1955. He succeeds Dr. John Gerletti who managed the IAFC for the past eighteen months, while on leave from his position as Associate Professor of the University of Southern California.

Chief Townsend, since 1949, has been Chief of the Bureau of Fire Mobilization and Control of the New York State Division of Safety, Albany, New York. In that position he encouraged the development of that State's outstanding firemen's training and mutual programs. He has also been active in the emergency plan of the Westchester County Fire Chiefs and many other fire service activities in New York State.

"Rick" Townsend began his career in the fire service in 1926 when he joined the Hartsdale, New York, fire Department as a volunteer fire fighter. He was chief of that department from 1941 to 1944, after which he was made Fire Coordinator of Westchester County. He served in this position until he joined the Division of Safety in 1949 as Chief of the Bureau of Fire Mobilization and Control. He has been active in IAFC meetings on the national, regional and state levels and has been a member of this Association for a number of years. He is also a former director of the New York State Association of Fire Chiefs. He is a member of the NFPA Committee on Firemen's Training and has participated in other NFPA committee activities.

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Cheap hose is expensive in the long run—in lives as well as money! Bi-Lateral has been famous for quality since 1907—and we don't intend to endanger that reputation—or lives—by making "cheaper" hose to meet a cheaper price.
Cheap hose must be replaced in seven years—Bi-Lateral will give you twenty years of safe service.
We believe that safety and long run economy are more important than price alone in the purchase of fire hose. That's why we say, "when you buy with your conscience, you'll Bi-Lateral!"
FIRST AGAIN!
BI-LATERAL was first to construct hose with the bi-lateral non-creasing feature for longer life, lower cost in the long run and true safety. Folds flatter, handles more easily!
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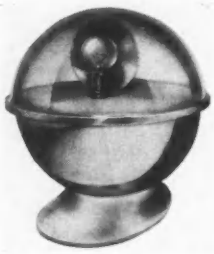
BI-LATERAL was first to offer a real detergent, BI-KLEEN—made especially for fire-hose cleaning exclusively for Bi-Lateral by the Essentials Chemical Co. Oil and dirt rot hose—Bi-Kleen is safe, non-toxic, keeps hose "inspection-white," keeps it cleaner, safer . . . good for fire-house and apparatus, too!
AND BI-LATERAL was first to furnish free fire hose record cards to fire departments. They are still available—send for a supply!
Bi-Lateral®
20 N. WACKER DRIVE, CHICAGO 6, ILLINOIS

What's New in Fire Equipment, Catalogs and Bulletins

Power Mower

Precision Equipment Co., 3714 North Milwaukee Avenue, Chicago 41, Illinois, has announced production of a new heavy duty mower and mulcher which may be of interest to many fire stations. The machine has an 18-inch cutting width and features a built-in mulcher which shreds the cut grass and leaves. It has a positive drive friction-type safety clutch, plus front and rear safety guards and a 2¼ hp gasoline engine. Cutting height is adjustable from ¾ in. to 2¾ inches. The mower is finished in yellow and black baked enamel finish with red trimming. Write to the manufacturer at the above address for further information.



New Revolving Light

Trippe Mfg. Co., 218 N. Jefferson St., Chicago, Illinois, is now manufacturing the "Hi-Ball," a 100 candlepower light for emergency vehicles. It throws light in all directions from its reflective screen and also has a revolving flash from a parabolic mirror which makes one complete turn at every second. The light is 9 in. in diameter mounted on a roof-fitting base with a spun copper body. The dome is extra heavy non-fading Tenite plastic and may be obtained in red, amber, blue, green or clear colors. The entire light may be demounted from the base when necessary. Catalog and prices are available from the manufacturer at the above address.

New Booster Hose

A new type booster hose has been announced by the Thermoid Company of Trenton, N. J. Called the "Red Devil" it is available in ¾-in. and 1-in. ID sizes and is designed for a working pressure of 800 psi. According to the manufacturer the 50-ft. length of ¾-in. size weighs only 28 lbs., and the same length of 1-in. size weighs 36 lbs. The new hose is available in lengths up to 50 ft. and has a 3-braid reinforcement of rayon and a compounded red cover designed to resist abrasion, oil and grease. Write to the manufacturer for further information.

Case-Less Emergency Lantern

The Burgess Battery Company of Freeport, Illinois, has developed a new utility lantern called the "Radar-Lite." The lantern measures only 4 x 5 inches and features a unique battery-and-case which the manufacturer claims provides 2½ to 4 times the life of an ordinary lantern battery. The electrical circuit is completed by the metal frame of the light head. The primary light is an adjustable sealed beam spotlight that can be tilted up or down 135 degrees. A movable red warning light which flashes more than 50 times a minute and which can be operated vertically or horizontally is mounted at the rear of the spotlight. The power pack consists of two 6-volt lantern batteries wired in parallel. Price of Model TW3 with both spotlight and red flashing light is $11.95 complete with battery; Model TW4 without the warning signal costs $2.45. Write to the manufacturer for further information.

SAFA Appointments

The Fyr-Fyter Company, Dayton, Ohio, has appointed M. W. Wallace as Vice President and General Manager of its SAFA Alarm Division, which is located at Orrville, Ohio, and which produces municipal and industrial fire alarm systems and related equipment. Other new SAFA officers appointed are: Sales Manager W. T. McCane; Assistant Vice President M. D. Hudson; and Assistant Secretary and Assistant Treasurer and Controller D. O. Hudson.

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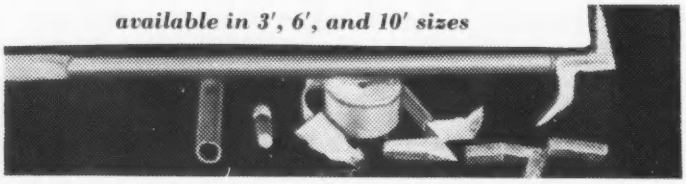
The New Look "HALLIGAN HOOK"

Companion to world-famous multi-purpose Halligan Tool

For Tin • Wire Lath • Light Materials • All Boards • Framing, etc.

available in 3', 6', and 10' sizes



Halligan Hook provides Triple Insulation – Rubber, Wood, Fibre Glass – Triple Heated Shaft – 3 Dimensional Head of 4140 Steel. BE FIRST WITH THE BEST!

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Put Your Fire Department's Name on These for

FIRE PREVENTION WEEK

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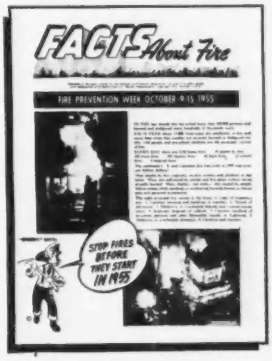

2. "FACTS ABOUT FIRE" 8½ x 11
4 pg. rotogravure
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3. DISPLAY CARD 11 x 17
2 colors
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With Easel Attached

6. STICKER — 1½ x 1⅛
Perforated — Use on
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7. COLORING BOOK — 4 Color
Cover, 16 pages of outline
drawings for coloring by
children, with fire preven-
tion in song and story.

4. COLORING SHEET — 8½ x 11
Sparky's Fire Prevention Week
Message for Children

5. SPARKY'S COMIC BOOK 7½ x 10
16 pages — full color — Sparky tells
youngsters of the story of modern
fire departments.

8. FLYER — Two colors
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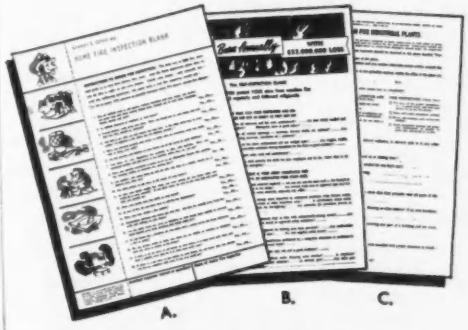
10. STORY BOOK "Hello, I Am Fire,"
5 x 7, 16 pages, full color.
A child's story of fire.

9. BLOTTER — Two colors 8½ x 3¾



11. INSPECTION BLANKS — 8½ x 11
A. Sparky's home inspection blank — 2 colors — for school distribution.
B. Self-inspection blank for Merchants—one color
C. Self-inspection form for Industrial Plants — one color

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For including in letters, home distribution, etc.

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_____ 7. Sparky Coloring Book—5c each, $5.00 per 100, $45.00 per 1000.
_____ 8. Flyer—$1.00 per 100, $7.00 per 1000.
_____ 9. Blotter—$1.50 per 100, $12.50 per 1000.
_____ 10. Hello, I am Fire—5c each, $45.00 per 1000.
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CITY AND STATE

For Fire Prevention Week

October 9-15

This boy will soon be a familiar sight throughout the United States and Canada. He and his message, "Don't Give Fire a Place to Start," will be featured on the millions of printed Fire Prevention Week materials prepared by the National Fire Protection Association.

Thousands of fire departments will be ordering the brightly colored posters, flyers, display cards and other items listed at left. By sending in your order now you can be certain of prompt delivery of the materials to your fire department.

Since many Fire Prevention Week activities are planned for the interests of children, many fire stations will be distributing the "Sparky" coloring books and comic book, the inspection blanks, and the new booklet "Hello, I'm Fire." There are also inspection blanks and folders especially prepared for industrial plants and mercantile shops.

Take a pen, now, and mark the items you need for best attention-getting in your community. Mail the blank to the NFPA today. *Orders for Fire Prevention Week materials cannot be accepted after September 22.*

Prices subject to 2% discount if payment accompanies order. All prices F.O.B. Boston. **ORDERS SHIPPED EXPRESS COLLECT.** NFPA members may receive single copy of all items gratis. Others may receive sample of all items except "Handbook" and Display Card (item 3) free upon request. Items No. 1, 2, 3, 5, 7, 9 10, 12(a) (b) (c) (d) (e) have space for imprints of names of campaign sponsors which may be added locally by purchasers.